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(Original Signature of Member)

117TH CONGRESS
1ST SESSION

H. R. _____

To amend the Scientific and Advanced-Technology Act of 1992 to expand support for advanced technological manufacturing, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. KILDEE introduced the following bill; which was referred to the Committee on _____

A BILL

To amend the Scientific and Advanced-Technology Act of 1992 to expand support for advanced technological manufacturing, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Advanced Technological Manufacturing Act''.

SEC. 2. ADVANCED TECHNOLOGICAL MANUFACTURING ACT.

(a) FINDINGS AND PURPOSE.—Section 2 of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862h) is amended—

(1) in subsection (a)—

(A) in paragraph (3), by striking ''science, mathematics, and technology'' and inserting ''science, technology, engineering, and mathematics or STEM'';

(B) in paragraph (4), by inserting ''educated'' and before ''trained''; and

(C) in paragraph (5), by striking ''scientific and technical education and training'' and inserting ''STEM education and training''; and

(2) in subsection (b)—

(A) in paragraph (2), by striking ''mathematics and science'' and inserting ''STEM fields''; and

(B) in paragraph (4), by striking ''mathematics and science instruction'' and inserting ''STEM instruction''.

(b) MODERNIZING REFERENCES TO STEM.—Section 3 of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i) is amended—

(1) in the section heading, by striking ''**SCIENTIFIC AND TECHNICAL EDUCATION** '' and inserting ''**STEM EDUCATION**'';

(2) in subsection (a)—

(A) in the subsection heading, by striking ''SCIENTIFIC AND TECHNICAL EDUCATION '' and inserting ''STEM EDUCATION'';

(B) in the matter preceding paragraph (1)—

(i) by inserting ''and education to prepare the skilled technical workforce to meet workforce demands'' before '', and to improve'';

(ii) by striking ''core education courses in science and mathematics'' and inserting ''core education courses in STEM fields'';

(iii) by inserting ''veterans and individuals engaged in'' before ''work in the home''; and

(iv) by inserting ''and on building a pathway from secondary schools, to associate-degree-granting institutions, to careers that require technical training'' before '', and shall be designed'';

(C) in paragraph (1)—

(i) by inserting ''and study'' after ''development''; and

(ii) by striking ''core science and mathematics courses'' and inserting ''core STEM courses'';

(D) in paragraph (2), by striking ''science, mathematics, and advanced-technology fields'' and inserting ''STEM and advanced-technology fields'';

(E) in paragraph (3)(A), by inserting ''to support the advanced-technology industries that drive the competitiveness of the United States in the global economy'' before the semicolon at the end;

(F) in paragraph (4), by striking ''scientific and advanced-technology fields'' and inserting ''STEM and advanced-technology fields''; and

(G) in paragraph (5), by striking ''advanced scientific and technical education'' and inserting ''advanced STEM and advanced-technology'';

(3) in subsection (b)—

(A) by striking the subsection heading and inserting the following: ''CENTERS OF SCIENTIFIC AND TECHNICAL EDUCATION.—'';

(B) in the matter preceding paragraph (1), by striking ''not to exceed 12 in number'' and inserting ''in advanced-technology fields'';

(C) in paragraph (2), by striking ''education in mathematics and science'' and inserting ''STEM education''; and

(D) in the flush matter following paragraph (2), by striking ''in the geographic region served by the center'';

(4) in subsection (c)—

(A) in paragraph (1)—

(i) in subparagraph (A)—

(I) in the matter preceding clause (i), by striking ''to encourage'' and all that follows through ''such means as—'' and inserting ''to encourage the development of career and educational pathways with multiple entry and exit points leading to credentials and degrees, and to assist students pursuing pathways in STEM fields to transition from associate-degree-granting col-

leges to bachelor-degree-granting institutions, through such means as—'';

(II) in clause (i), by striking ''to ensure'' and inserting ''to develop articulation agreements that ensure''; and

(III) in clause (ii), by striking ''courses at the bachelor-degree-granting institution'' and inserting ''the career and educational pathways supported by the articulation agreements'';

(ii) in subparagraph (B)—

(I) in clause (i), by inserting ''veterans and individuals engaged in'' before ''work in the home'';

(II) in clause (iii)—

(aa) by striking ''bachelor's-degree-granting institutions'' and inserting ''institutions or work sites''; and

(bb) by inserting ''or industry internships'' after ''summer programs''; and

(III) by striking the flush text following clause (iv); and

(iii) by striking subparagraph (C);

(B) in paragraph (2)—

(i) by striking ''mathematics and science programs'' and inserting ''STEM programs'';

(ii) by inserting ''and, as appropriate, elementary schools,'' after ''with secondary schools'';

(iii) by striking ''mathematics and science education'' and inserting ''STEM education'';

(iv) by striking ''secondary school students'' and inserting ''students at these schools'';

(v) by striking ''science and advanced-technology fields'' and inserting ''STEM and advanced-technology fields''; and

(vi) by striking ''agreements with local educational agencies'' and inserting ''articulation agreements or dual credit courses with local secondary schools, or other means as the Director determines appropriate,''; and

(C) in paragraph (3)—

(i) by striking subparagraph (B);

(ii) by striking ''shall—''and all that follows through ''establish a'' and inserting ''shall establish a'';

(iii) by striking ''the fields of science, technology, engineering, and mathematics'' and inserting ''STEM fields''; and

(iv) by striking ''; and'' and inserting '', including jobs at Federal and academic laboratories.'';

(5) in subsection (d)(2)—

(A) in subparagraph (D), by striking ''and'' after the semicolon;

(B) in subparagraph (E), by striking the period at the end and inserting a semicolon; and

(C) by adding at the end the following:

''(F) as appropriate, applications that apply the best practices for STEM education and technical skills education through distance learning or in a simulated work environment, as determined by research described in subsection (f); and'';

(6) in subsection (g), by striking the second sentence;

(7) in subsection (h)(1)—

(A) in subparagraph (A), by striking ''2022'' and inserting ''2026'';

(B) in subparagraph (B), by striking ''2022'' and inserting ''2026''; and

(C) in subparagraph (C)—

(i) by striking ''up to $2,500,000'' and inserting ''not less than $3,000,000''; and

(ii) by striking ''2022'' and inserting ''2026'';

(8) in subsection (i)—

(A) by striking paragraph (3); and

(B) by redesignating paragraphs (4) and (5) as paragraphs (3) and (4), respectively; and

(9) in subsection (j)—

(A) by striking paragraph (1) and inserting the following:

''(1) the term advanced-technology includes technological fields such as advanced manufacturing, agricultural-, biological- and chemical-technologies, energy and environmental technologies, engineering technologies, information technologies, micro and

nano-technologies, cybersecurity technologies, geospatial technologies, and new, emerging technology areas;'';

(B) in paragraph (4), by striking ''separate bachelor-degree-granting institutions'' and inserting ''other entities'';

(C) by striking paragraph (7);

(D) by redesignating paragraphs (8) and (9) as paragraphs (7) and (8), respectively;

(E) in paragraph (7), as redesignated by subparagraph (D), by striking ''and'' after the semicolon;

(F) in paragraph (8), as redesignated by subparagraph (D)—

(i) by striking ''mathematics, science, engineering, or technology'' and inserting ''science, technology, engineering, or mathematics''; and

(ii) by striking the period at the end and inserting ''; and''; and

(G) by adding at the end the following:

''(9) the term skilled technical workforce means workers—

''(A) in occupations that use significant levels of science and engineering expertise and technical knowledge; and

''(B) whose level of educational attainment is less than a bachelor degree.''.

(c) AUTHORIZATION OF APPROPRIATIONS.—Section 5 of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862j) is amended to read as follows:

''SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated to the Director for carrying out sections 2 through 4, $150,000,000 for fiscal years 2022 through 2026.''.